

REMARKS

Claims 1-5, 12-16, and 25-39 are pending in this application. By this Response, claims 1-5 and 12-16 are amended, claims 6-11 and 17-24 are canceled, and claims 25-39 are added. Support for the amendments to the claims and the addition of claims is provided at least at pages 11-16 and Figures 3 and 4 of the present specification. Reconsideration of the claims in view of the above amendments and the following remarks is respectfully requested.

I. Telephone Interview

Applicants thank Examiner Krofcheck for the courtesies extended to Applicants' representative during the June 7, 2006 telephone interview. During the telephone interview, the above amendments and distinctions of the claims over the cited art were discussed. Examiner Krofcheck agreed that the 112 and 101 rejections set forth in the Office Action have been overcome by the above amendments and that newly added computer program product claims 35-39 satisfy the Examiner's concerns raised with regard to originally filed claim 24 under 35 U.S.C. § 101. Examiner Krofcheck agreed that the proposed amendments appear to overcome the cited art but stated that a closer review of the Hammond reference would be required before making a final determination. The substance of the telephone interview is summarized in the following remarks.

II. Rejections under 35 U.S.C. § 112, Second Paragraph

The Office Action rejects claims 13-24 under 35 U.S.C. § 112, second paragraph as being allegedly indefinite. This rejection is respectfully traversed.

With regard to claim 13, this claim has been amended by the present Response to recite a "page table" as suggested by the Office Action. With regard to claim 16, this claim is amended to recite the "pre-load unit" which has antecedent basis in claim 12, from which it depends. Regarding claims 17-24, these claims are canceled by this Response and thus, the rejection is rendered moot. In view of the above, Applicants

respectfully request withdrawal of the rejection of claims 13-24 under 35 U.S.C. § 112, second paragraph.

III. Rejection under 35 U.S.C. § 101

The Office Action rejects claim 24 under 35 U.S.C. § 101 as being allegedly directed to non-statutory subject matter. Claim 24 is canceled by this Response and thus, the rejection is rendered moot. However, this Response adds claims 35-39 which are directed to a computer program product. Claims 35-39 recite that the computer program product is in a "computer usable medium." Therefore, the requirement that the computer program product be embodied on a computer medium is satisfied by claims 35-39. Applicants respectfully submit that claims 35-39 are directed to statutory subject matter.

IV. Rejection under 35 U.S.C. § 103(a) of Claims 1-5 and 12-16

The Office Action rejects claims 1-5 and 12-16 under 35 U.S.C. § 103(a) based on Applicants' Allegedly Admitted Prior Art (AAPA) in view of Hammond (U.S. Patent No. 5,918,250). This rejection is respectfully traversed.

Taking claim 12 as representative of the other rejected independent claim 1 with regard to similarly recited subject matter, reads as follows:

12. A method for managing a translation mechanism in a processor architecture comprising:
- pre-loading translation data into a translation look-aside buffer, for at least one translation of at least one effective address to at least one corresponding real address, prior to execution of an application corresponding to the at least one translation;
 - generating an effective address;
 - translating the effective address into a real address utilizing the translation look-aside buffer; and
 - accessing stored general data in a storage device based on the real address. (emphasis added)

Neither the AAPA nor Hammond, either alone or in combination, teach or suggest the features of claim 12 emphasized above, or the similar features found in independent claim 1.

The Office Action admits that the AAPA does not teach a pre-loading of translation data or a means for pre-loading translation data. Applicants agree. However, Applicants disagree that Hammond teaches or even suggests such a feature for the reasons stated hereafter.

Hammond is directed to a mechanism for pre-loading default address translation attributes. This pre-loading of attributes is described in column 4, line 58 to column 5, line 15. As described in this section of Hammond, in response to a process executing on a processor generating a virtual address whose translation is not stored in the translation look-aside buffer (TLB), a TLB miss fault is generated. In response to this TLB miss fault, the preload circuit pre-loads default translation attributes which are a preferred page size, a caching protocol, and an address space identifier (ASID). If these default attributes are correct, then the only field that needs to be populated by the TLB miss handler is the physical address field. This increases the speed of the TLB miss handler.

Thus, the preload circuit of Hammond does not load "at least one translation of at least one effective address to at least one corresponding real address" and does not load such a translation "prior to execution of an application corresponding to the at least one translation." To the contrary, the preload circuit of Hammond merely loads default attributes in the hopes that these default attributes will apply to most translations. Moreover, the preload circuit of Hammond operates in response to process executing on a processor generating a TLB miss fault. Thus, the preload circuit of Hammond operates after the process is executing, not prior to the execution of an application corresponding to the translation. Hence, contrary to the allegations raised in the Office Action, Hammond, in actuality, does not teach or suggest the features of independent claim 12, or the similar features in independent claim 1.

In view of the above, Applicants respectfully submit that neither the AAPA nor Hammond, either alone or in combination, teach or suggest the features of independent claims 1 and 12. At least by virtue of their dependency on claims 1 and 12, respectively, neither the AAPA nor Hammond, either alone or in combination, teach or suggest the

features of dependent claims 2-5 and 13-16. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1-5 and 12-16 under 35 U.S.C. § 103(a).

V. Rejection under 35 U.S.C. § 103(a) of Claims 6-11 and 17-22

The Office Action rejects claims 6-11 and 17-22 under 35 U.S.C. § 103(a) in view of the AAPA, Hammond, and further in view of DeLano et al. (U.S. Patent no. 5,493,660). This rejection is moot with regard to canceled claims 6-11 and 17-22. With regard to the remaining claims, as with the AAPA and Hammond as discussed above, DeLano et al. does not teach or even suggest the feature of “pre-loading translation data into a translation look-aside buffer, for at least one translation of at least one effective address to at least one corresponding real address, prior to execution of an application corresponding to the at least one translation” as recited in independent claim 12 or similar features in independent claim 1. Therefore, any alleged combination of DeLano with Hammond and the AAPA still would not result in the features of the independent claims 1 and 12 being taught or suggested.

VI. Rejection under 35 U.S.C. § 103(a) of Claims 23-24

The Office Action rejects claims 23-24 under 35 U.S.C. § 103(a) in view of the AAPA, Hammond, and further in view of Belair (U.S. Patent no. 6,212,613). This rejection is moot with regard to canceled claims 23-24. With regard to the remaining claims, as with the AAPA and Hammond as discussed above, Belair does not teach or even suggest the feature of “pre-loading translation data into a translation look-aside buffer, for at least one translation of at least one effective address to at least one corresponding real address, prior to execution of an application corresponding to the at least one translation” as recited in independent claim 12 or similar features in independent claim 1. Therefore, any alleged combination of Belair with Hammond and the AAPA still would not result in the features of the independent claims 1 and 12 being taught or suggested.

VII. Newly Added Claims 25-39

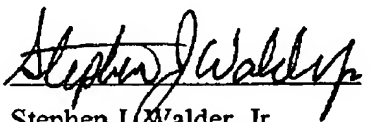
Claims 25-39 are added to recite additional features of the present invention. Support for the addition of these claims may be found on pages 11-15 and Figures 3-4 of the present specification, as well as the originally filed claims. For example, support for claims 25 and 30 may be found at least at page 12, lines 1-3. Support for claims 26 and 31 may be found at least at page 12, lines 18-21. Support for claims 27 and 32 may be found at least at page 12, lines 16-26. Support for claims 28-29 and 33-34 may be found at page 12, lines 3-11. Support for the addition of claims 35-39 may be found at least in the originally filed claims and on page 12, lines 1-3. The cited art, Hammond, DeLano, and Belair, as well as the AAPA, do not teach or suggest the features of claims 25-39. Prompt and favorable consideration of claims 25-39 is respectfully requested.

VIII. Conclusion

It is respectfully urged that the subject application is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

DATE: June 8, 2006



Stephen J. Walder, Jr.
Reg. No. 41,534
WALDER INTELLECTUAL PROPERTY LAW, P.C.
P.O. Box 832745
Richardson, TX 75083
(214) 722-6419
ATTORNEY FOR APPLICANTS